

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) Two-component polyurethane composition consisting of a first component **A** comprising

at least one polyurethane prepolymer **A1** with isocyanate end groups,

synthesized from at least one polyisocyanate and at least one polyol

and a second component **B** comprising

water

as well as at least one polyaldimine **B1**, which ~~can be~~ is obtained from at least one polyamine **PA** with aliphatic primary amino groups and at least one low-odor aldehyde **ALD** as in formula (I) or formula (II),



where **Y¹** and **Y²**

either

each independently represent ~~on the one hand~~ a hydrogen atom, a hydroxyl group, or an organic residue;

or

together represent a carbocyclic or heterocyclic ring, having a ring size between 5 and 8 atoms, ~~preferably 6 atoms; atoms;~~
and Y³

either

stands for a substituted or unsubstituted alkyl group having at least one hetero atom;

or

stands for a branched or unbranched alkyl or alkylene group with at least 10 C atoms;

or

stands for a substituted or unsubstituted aryl or arylalkyl group;

or

stands for O—R¹ or $\text{O}-\text{C}(=\text{O})-\text{R}^1$ or $\text{C}(=\text{O})-\text{O}-\text{R}^1$ or $\text{C}(=\text{O})-\text{R}^1$, wherein R¹ stands for an aryl, arylalkyl, or alkyl group with at least 3 C atoms and in each case is substituted or unsubstituted;

and Y⁴

either

stands for a substituted or unsubstituted aryl or heteroaryl group, having a ring size between 5 and 8 atoms, ~~preferably 6 atoms; atoms;~~

or

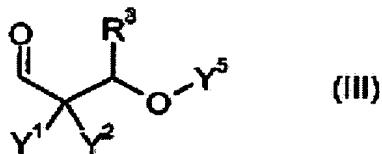
or stands for $\text{C}(=\text{O})-\text{R}^2$, with R² = alkyl, hydroxyl, or alkoxy;

or

stands for a substituted or unsubstituted alkenyl or arylalkenyl group with at least 6 C atoms.

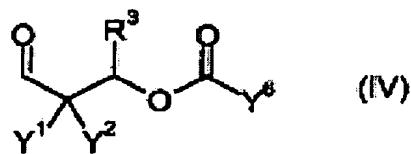
2. (Previously Presented) Two-component polyurethane composition as in Claim 1, wherein the heteroatom in Y^3 is present in the form of an ether oxygen or a carboxyl, ester, or hydroxyl group.

3. (Previously Presented) Two-component polyurethane composition as in Claim 1, wherein the aldehyde **ALD** has formula (III),



where R^3 and Y^5 each independently stand for a hydrogen atom or for an alkyl or arylalkyl group.

4. (Previously Presented) Two-component polyurethane composition as in Claim 1, wherein the aldehyde **ALD** has formula (IV),



wherein

R^3 stands for a hydrogen atom or for an alkyl or arylalkyl group, and Y^6

either

represents a hydrogen atom;

or

represents an alkyl or arylalkyl or aryl group, which optionally has at least one hetero atom, optionally contains at least one carboxyl group, and optionally contains at least one ester group;

or

or represents a monounsaturated or polyunsaturated, linear or branched hydrocarbon chain.

5. (Currently Amended) Two-component polyurethane composition as in Claim 4, wherein R^3 stands for a hydrogen atom, and

Y^6

either

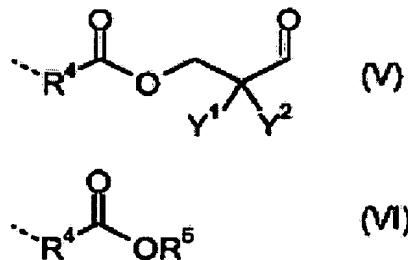
stands for a linear or branched alkyl chain with 11 to 30 carbon atoms, optionally with at least one hetero atom, ~~in particular with at least one ether oxygen;~~

or

stands for a monounsaturated or polyunsaturated linear or branched hydrocarbon chain with 11 to 30 carbon atoms;

or

stands for a residue of formula (V) or (VI),



wherein

R^4 either

stands for a linear or branched or cyclic alkylene chain with 2 to 16 carbon atoms, optionally with at least one hetero atom, ~~in particular with at least one ether oxygen;~~

or

stands for a monounsaturated or polyunsaturated, linear or branched or cyclic hydrocarbon chain with 2 to 16 carbon atoms;

and

R^5 stands for a linear or branched alkyl chain with 1 to 8 carbon atoms.

6. (Currently Amended) Two-component polyurethane composition as in claim 4, wherein the aldehyde **ALD** used to synthesize the polyaldimine ~~can be~~ is obtained by means of an esterification reaction between a β -hydroxyaldehyde and a carboxylic acid, ~~in particular without use of a solvent~~, where the β -hydroxyaldehyde is synthesized, optionally *in situ*, from formaldehyde or paraformaldehyde and a second aldehyde.

7. (Currently Amended) Two-component polyurethane composition as in Claim 6, wherein the aldehyde **ALD** used to synthesize the polyaldimine ~~can be~~ is obtained by means of an esterification reaction between 3-hydroxypivalaldehyde and a carboxylic acid, ~~in particular without use of a solvent~~, where the 3-hydroxypivalaldehyde is synthesized,

optionally *in situ*, from formaldehyde or paraformaldehyde and isobutyraldehyde.

8. (Currently Amended) Two-component polyurethane composition as in

Claim 6, wherein the carboxylic acid used to synthesize the aldehyde **ALD** is selected from the group ~~including~~consisting of lauric acid, myristic acid, palmitic acid, stearic acid, oleic acid, linoleic

acid, linolenic acid, succinic acid, adipic acid, azelaic acid, and sebacic acid, mixtures thereof, and their industrial mixtures with fatty acids.

9. (Previously Presented) Two-component polyurethane composition as in claim 1, wherein $Y^1 = Y^2 = \text{methyl}$.

10. (Currently Amended) Two-component polyurethane composition as in

Claim 1, wherein the aldehyde **ALD** has formula (I) and Y^1 stands for a hydroxyl group, Y^2 stands for a hydrogen atom, and Y^3 stands for an alkyl group with at least one hydroxyl group, ~~in particular with more than one hydroxyl group~~.

11. (Currently Amended) Two-component polyurethane composition as in claim 1, wherein the polyamine **PA** with aliphatic primary amino groups is selected from the group consisting of 1,6-hexamethylenediamine, MPMD, DAMP, 2,2,4- and 2,4,4 trimethylhexamethylenediamine, 4-aminomethyl-1,8-octanediamine, IPDA, 1,3- and 1,4 xylylenediamine, 1,3- and 1,4-bis(aminomethyl)cyclohexane, bis(4 aminocyclohexyl)methane, bis(4-amino-3-methylcyclohexyl)methane, 3(4),8(9) bis(aminomethyl)tricyclo[5.2.1.0^{2,6}]decane, 1,2-, 1,3- and 1,4-diaminocyclohexane, 1,4 diamino-2,2,6-trimethylcyclohexane, polyoxyalkylene polyamines with ~~theoretically~~ two or ~~three~~ three amino groups, ~~in particular Jeffamine[®] EDR-148, Jeffamine[®] D-230, Jeffamine[®] D-400 and Jeffamine[®] T-403, as well as~~ and mixtures of two or more of the aforementioned polyamines.

12. (Previously Presented) Two-component polyurethane composition as in claim

1, wherein for synthesis of the polyaldimine **B1**, the aldehyde **ALD** is used in stoichiometric proportion or in stoichiometric excess relative to the primary amino groups of the polyamine **PA**.

13. (Previously Presented) Two-component polyurethane composition as in claim 1, wherein the water in the second component **B** is present in free form or is reversibly bound to a carrier.

14. (Previously Presented) Two-component polyurethane composition as in claim 1, wherein the second component **B** has at least one water molecule per aldimine group.

15. (Previously Presented) Two-component polyurethane composition as in claim 1, wherein the polyol for synthesis of the polyurethane prepolymer **A1** of the first component **A** has an average number of OH groups equal to 1.6 to 3.

16. (Currently Amended) Two-component polyurethane composition as in Claim 15, wherein the polyol is a polyoxyalkylene polyol, ~~in particular a polyoxyalkylene diol or triol, in particular a polyoxypolyethylene diol or triol or an EO-endeapped polyoxypolyethylene diol or triol.~~

17. (Previously Presented) Two-component polyurethane composition as in Claim 15, wherein the polyol is a polyoxyalkylene polyol with a degree of unsaturation < 0.02 meq/g and a molecular weight M_n from 1000 to 30 000 g/mol.

18. (Previously Presented) Two-component polyurethane composition as in Claim 17, wherein the polyol is a polyol synthesized by means of DMC catalysis.

19. (Currently Amended) Two-component polyurethane composition as in claim 1, wherein the polyurethane prepolymer **A1** in the first component **A** and the polyaldimine **B1** in the second component **B** are present in a ratio from 0.1 to 0.99, ~~in particular from 0.4 to 0.8~~ equivalents of aldimine groups per equivalent of isocyanate groups.

20. (Previously Presented) Method for mixing a two-component polyurethane composition as in claim 1, wherein the first component **A** and the second component **B** are blended by essentially uniform mixing.

21. (Previously Presented) Method for mixing a two-component polyurethane composition as in claim 1, wherein the first component **A** and the second component **B** are blended by essentially laminar mixing.

22. (Currently Amended) Method for mixing as in Claim 20, wherein the mixing of the two components **A** and **B** is carried out by means of a dispensing attachment containing two interlocking dispensing rotors, ~~as well as in addition and~~ optionally by means of a static mixer mounted at the outlet of this dispensing attachment.

23. (Currently Amended) Method for application of a two-component polyurethane composition as in claim 1, ~~wherein it includes the following steps the method comprising:~~

- Mixing of the two components **A** and **B**;
- Making contact between at least one solid surface and the mixed polyurethane composition; and
- Curing the mixed polyurethane composition.

24. (Previously Presented) Method for application as in Claim 23, wherein the contact with the solid surface is made by applying a bead to the surface.

25. (Canceled)

26. (Previously Presented) Article which is tightly bonded with a mixed and cured two-component polyurethane composition as in claim 1.